

**REPORT OF PROPOSED ACTIVITIES IN  
NON-AGREEMENT STATES, AREAS OF EXCLUSIVE  
FEDERAL JURISDICTION, OR OFFSHORE WATERS***(Please read the instructions before completing this form)*

Estimated burden per response to comply with this mandatory collection request: 15 minutes. This notification is required so that NRC may schedule inspection of the activities to ensure that they are conducted in accordance with requirements for protection of the public health and safety. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0013), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. NAME OF LICENSEE (Person or firm proposing to conduct the activities described below)  Berthold Technologies USA, LLC	2. TYPE OF REPORT <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> REVISION <input type="checkbox"/> CLARIFICATION
3. ADDRESS OF LICENSEE (Mailing address or other location where licensee may be located)  801 South Illinois Avenue Oak Ridge, TN 37830	4. LICENSEE CONTACT AND TITLE  Mark Morgan, Alt. RSO
	5. TELEPHONE NUMBER (Include Area Code) 865-483-2226
	6. FACSIMILE NUMBER (Include Area Code) 865-481-2432

**7. ACTIVITIES TO BE CONDUCTED UNDER THE GENERAL LICENSE GIVEN IN 10 CFR 150.20**

- ☐ WELL LOGGING ☐ LEAK TESTING AND/OR CALIBRATIONS ☐ TELETHERAPY/IRRADIATOR SERVICE
- ☐ PORTABLE GAUGES ☐ OTHER (Specify)  $\Rightarrow$  \_\_\_\_\_
- ☐ RADIOGRAPHY  $\Rightarrow$  REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NUMBERS) \_\_\_\_\_

8. CLIENT NAME, ADDRESS, CITY/COUNTY, STATE, ZIP CODE	9. ACTUAL PHYSICAL ADDRESS OF WORK LOCATION (Street and Number or other location. Give as complete an address or directions as possible.)			
	10. CLIENT TELEPHONE NUMBER (Include Area Code)			
	11. WORK LOCATION TELEPHONE NUMBER (Include Area Code)			
12. DATES SCHEDULED	13. NUMBER OF WORK DAYS	14. ADD	15. DELETE	16. LOCATION REFERENCE NUMBER
FROM	TO			NUMBER TO BE ASSIGNED BY NRC 000244

**LIST ADDITIONAL WORK SITES ON SEPARATE SHEET(S) TO INCLUDE ALL INFORMATION CONTAINED IN ITEMS 9-16 ABOVE.**

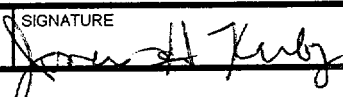
17. LIST RADIOACTIVE MATERIAL, WHICH WILL BE POSSESSED, USED, INSTALLED, SERVICED, OR TESTED (Include description of type and quantity of radioactive material, sealed sources, or devices to be used.)			
18. AGREEMENT STATE SPECIFIC LICENSE WHICH AUTHORIZES THE UNDERSIGNED TO CONDUCT ACTIVITIES WHICH ARE THE SAME, EXCEPT FOR LOCATION OF USE, AS SPECIFIED IN ITEM 9. ABOVE. (Four copies of the specific license must accompany the initial NRC Form 241.)	LICENSE NUMBER R-01082-D02	STATE TN	EXPIRATION DATE 4-30-2002

**19. CERTIFICATION (MUST BE COMPLETED BY APPLICANT)****I, THE UNDERSIGNED, HEREBY CERTIFY THAT:**

- All information in this report is true and complete.
- I have read and understand the provision of the general license 10 CFR 150.20 reprinted on the instructions of this form; and I understand that I am required to comply with these provisions as to all byproduct, source, or special nuclear material which I possess and use in non-Agreement States or offshore waters under the general license for which this report is filed with the U.S. Nuclear Regulatory Commission.
- I understand that activities, including storage, conducted in non-Agreement States under general license 10 CFR 150.20 are limited to a total of 180 days in calendar year. With the exception of work conducted in off-shore waters, which is authorized for an unlimited period of time in the calendar year.
- I understand that I may be inspected by NRC at the above listed work site locations and at the Licensee home office address for activities performed in non-Agreement States or offshore waters.
- I understand that conduct of any activities not described above, including conduct of activities on dates or locations different from those described above or without NRC authorization, may subject me to enforcement action, including civil or criminal penalties.

CERTIFYING OFFICER - RSO or Management Representative (Name and Title) Mark Morgan, Alt. RSO	SIGNATURE 	DATE 1-11-2001
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**WARNING: False statements in this certificate may be subject to civil and/or criminal penalties. NRC regulations require that submissions to the NRC be complete and accurate in all material respects. 18 U.S.C. Section 1001 makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.**

FOR NRC USE ONLY	R Janice H. Kirby Licensing Assistant	nd Title	SIGNATURE 	DATE 1/17/01	TOTAL USAGE -- DAYS TO DATE 1
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Berthold Technologies USA, LLC  
801 South Illinois Avenue  
Oak Ridge, TN 37831-0895 USA  
Phone: 865-483-2118  
Fax: 865-481-2432  
[www.berthold-us.com](http://www.berthold-us.com)

FAX

ATTN.:	Janice Kirby	FAX-NO.:	404-562-4955
COMPANY:	United States Nuclear Regulatory Commission	DATE:	1/11/01
CC:		OUR REF #:	
FROM:	Tonya Chauvin	PAGE(s) including cover	25
SUBJECT:	<b><i>Berthold Technologies license renewal and corporate name change</i></b>		

Dear Janice,

Please notice that the renewal check is issued by Berthold Technologies. We have recently undergone a company sale resulting in the new name. Our license and registrations have been updated with the State of Tennessee, and a copy of the new license follows this letter.

I am also including a list of visits that we anticipate making to Non-Agreement States within the next year, a completed form 241, and a copy of the check to cover the regulatory fee. Please feel free to contact me if you have any questions regarding this matter.

Best regards,

A handwritten signature in cursive script that reads "Mark Morgan" followed by a stylized flourish or initials.

Mark Morgan, Alt. RSO  
Berthold Technologies USA, LLC  
Direct Telephone 865-483-2226

**NRC List**

<b><u>Company</u></b>	<b><u>City</u></b>	<b><u>State</u></b>	<b><u>NRC Number</u></b>
Usibelli Coal	Healy	AK	001106
Peter Pan Foods	King Cove	AK	
ARCO Alaska	Anchorage	AK	
Alaska Mechanical	Kodiak	AK	001215
Hercules	Wilmington	DE	
West Boise WWTP	Boise	ID	000932
Amalgamated Sugar	Paul	ID	
Kaneb Pipeline	Sioux Falls	ID	001078
Kaneb Pipeline	Yankton	ID	001079
AK Steel	Rockport	IN	
Cultor Foods	Terre Haute	IN	
Steel Dynamics	Butler	IN	
Johns Manville	Richmond	IN	
GE Plastics	Mt. Vernon	IN	
Inland Steel	East Chicago	IN	
Nucor Steel	Crawfordsville	IN	
Renosol	Farwell	MI	000902
Harbison-Walker	Ludington	MI	
Bio Lab	Adrian	MI	000166
Monitor Sugar	Bay City	MI	
Donnelly Corporation	Holland	MI	000809
Cabot Corporation	Midland	MI	001170
Biolab, Inc.	Adrian	MI	
Boise Cascade Paper	International Falls	MN	
Potlatch Corporation	Cloquet	MN	001000
3M Corporation	St. Paul	MN	
American Crystal Sugar	East Grand Forks	MN	
North Star Steel	St. Paul	MN	
Wunderlich-Malec Systems	Shakopee	MN	

LaFarge Corporation  
 Continental Cement  
 Terra Nitrogen  
 Ft. James Corp.  
 Nucor Steel  
 Koppel Steel  
 Jeddo Coal  
 P.H. Glatfelter  
 PPC, Inc.  
 PQ Corporation  
 US Steel  
 Penn Power  
 International paper  
 Canterbury Coal  
 Jewell Smokeless Coal  
 Slurry Technologies, Inc.  
 McLanahan Corporation  
 Westvaco  
 Duquesne Energy  
 Chaparral Steel  
 Celanese Acetate  
 Union Camp  
 Allied Colloids  
 Stone Container  
 Kyanite Mining  
 Global Stone Chemstone Corp.  
 Charter Steel  
 Murphy Oil  
 International Paper – Thilmany  
 Frasier Papers  
 U.S. Silica  
 Beltech Recycling  
 aka Adirondack Recycle

Sugar Creek  
 Hannibal  
 Woodward  
 Muskogee  
 Pittsburgh  
 Koppel  
 Boswell  
 Spring Grove  
 Tarentum  
 Chester  
 Clariton  
 Shippingport  
 Erie  
 Avonmore  
 Vansant  
 Richmond  
 Richmond  
 Covington  
 Hopewell  
 Petersburg  
 Narrows  
 Franklin  
 Suffolk  
 Hopewell  
 Dillwyn  
 Middletown  
 Saukville  
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 Park Falls  
 Berkley Springs  
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aka WV Pulp and Fibre			
Eagle Supply	Clarksburg	WV	
Rheox Corporation	Charleston	WV	
GE Plastics	Morgantown	WV	
Elkem Metals	Alloy	WV	
Terry Eagle Coal Co.	Jodie	WV	
GE Specialty Chemicals	Morgantown	WV	
Fola Coal Co.	Bickmore	WV	000556
PPG Industries	New Martinsville	WV	
Princess Pollyanna Coal	Rupert	WV	
General Chemical	Green River	WY	
OCI Chemical Corp.	Green River	WY	
Solvay Minerals	Green River	WY	001109
Roberts & Schafer Co.	Gillette	WY	
Cordero Mining	Gillette	WY	000692
S.F. Phosphates	Rock Springs	WY	001307



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

3<sup>rd</sup> Floor, L & C Annex  
401 Church Street  
Nashville, TN 37243-1532

November 28, 2000

Berthold Technologies U.S.A., LLC  
801 South Illinois Avenue  
Oak Ridge, TN 37830

Attention: Juergen Muthmann

Dear Mr. Muthmann:

We have amended Tennessee Radioactive Material License Number R-01082-D02 in part to authorize the transfer of this license to Berthold Technologies U.S.A, LLC in accordance with the statements and representations in your letter dated November 7, 2000, with attachments. This amendment confirms that the organizational change as specified in your letter meets our requirements for transfer of the license, and authorizes Berthold Technologies U.S.A, LLC to continue licensed operations.

Sincerely,

Charles Arnott  
Health Physicist  
Division of Radiological Health

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH



**RADIOACTIVE MATERIAL LICENSE**

**Amendment 32**

Pursuant to Tennessee Department of Environment and Conservation Regulations, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the Tennessee Department of Environment and Conservation and orders of the Division of Radiological Health, now or hereafter in effect and to any conditions specified below.

<b>LICENSEE</b>  1. Name <b>Berthold Technologies U.S.A., LLC</b>  2. Address <b>801 South Illinois Avenue Oak Ridge, TN 37830</b>		3. License number <b>R-01082-D02</b> <b>amended in its entirety</b>
		4. Expiration date <b>April 30, 2002</b>
		5. File no. <b>R-01082</b>
6. Radioactive Material (Element and Mass Number)  <b>See</b>	8. Chemical and/or physical form  <b>Supplementary</b>	9. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.  <b>Sheets</b>

10. Authorized Use  <b>See                      Supplementary                      Sheets</b>
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**CONDITIONS**

11. Unless otherwise specified, the authorized place of use is the licensee's address stated in item 2, above.  <b>See                      Supplementary                      Sheets</b>
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For the Commissioner  
Tennessee Department of Environment and Conservation

By: *Charles Arnott*  
DIVISION OF RADIOLOGICAL HEALTH  
Charles Arnott  
Health Physicist

Date of Issuance November 28, 2000

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License Number R-01082-D02

6. Radioactive Material (Element and Mass Number)	8. Chemical and/or Physical Form	9. Maximum Radioactivity and/or Quantity of Material Which Licensee May Possess at Any One Time
A. Cobalt 60	A. Sealed source (Amersham Model CKC.P4, Capsule Type VZ-1486/3)	A. No single source to exceed 500 millicuries. Total Cobalt 60 possessed under this license not to exceed 5 curies.
B. Cobalt 60	B. Sealed source (Berthold Technologies Model P 2602-100)	B. No single source to exceed 100 millicuries. Total Cobalt 60 possessed under this license not to exceed 5 curies.
C. Cesium 137	C. Sealed source (Amersham Model CDC.P4, Capsule Type VZ-1508/2)	C. No single source to exceed 750 millicuries. Total Cesium 137 possessed under this license not to exceed 15 curies.
D. Cesium 137	D. Sealed source (Amersham Model CDC.93, Capsule Type X.9, Berthold Technologies Adaptor Drawing No. 2601.104-000)	D. No single source to exceed 2000 millicuries. Total Cesium 137 possessed under this license not to exceed 15 curies.



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E. Cesium 137

E. Sealed source  
(Bebig Model  
Cs7.PO2)

E. No single source to  
exceed 500 millicuries.  
Total Cesium 137  
possessed under this  
license not to exceed  
15 curies.

F. Cobalt 60

F. Sealed source  
(Berthold Technologies  
Model P 2608-100)

F. No single source to  
exceed 500 millicuries.  
Total Cobalt 60  
possessed under this  
license not to exceed  
5 curies.

G. Americium 241

G. Sealed source  
(Amersham Model  
AMC.D3 and AMC.16)

G. No single source to  
exceed 110 millicuries.  
Total Americium 241  
possessed under this  
license not to exceed  
3 curies.

H. Americium 241

H. Sealed source  
(Amersham Model  
AMC.16 and AMC.17)

H. No single source to  
exceed 330 millicuries.  
Total Americium 241  
possessed under this  
license not to exceed  
3 curies.

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I. Cobalt 60

I. Sealed source  
(Berthold Technologies  
Model P 2608-100)

I. No single source to  
exceed 500 millicuries.  
Total Cobalt 60  
possessed under this  
license not to exceed  
5 curies.

J. Cobalt 60

J. Sealed source  
(Berthold Technologies  
Model P 2608-100)

J. No single source to  
exceed 500 millicuries.  
Total Cobalt 60  
possessed under this  
license not to exceed  
5 curies.

K. Cobalt 60

K. Sealed source  
(Berthold Technologies  
Model P 2608-100)

K. No single source to  
exceed 20 millicuries.  
Total Cobalt 60  
possessed under this  
license not to exceed  
5 curies.

L. Curium 244

L. Sealed source  
(Amersham  
Model CLCL)

L. No single source to  
exceed 11 millicuries.

M. Americium 241/Be

M. Sealed Source  
(Amersham  
Model AMN.PE1)

M. No single source to  
exceed 330 millicuries.

N. Cesium 137

N. Sealed Source  
(Amersham  
Model CDC.93)

N. No single source to  
exceed 110 millicuries.

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- |                  |   |  |
|------------------|---|--|
| O. Cesium 137    | O. Sealed source<br>(Berthold Technologies<br>Model LB 8920)          | O. No single source to<br>exceed 900 millicuries.  |
| P. Americium 241 | P. Sealed source<br>(Berthold Technologies<br>Model LB 8910)          | P. No single source to<br>exceed 900 millicuries.  |
| Q. Cesium 137    | Q. Sealed source<br>(AEA Technology<br>Model CDC.700,<br>Capsule X.7) | Q. Ten (10) sources not to<br>exceed 90 microcuries<br>each. Total not to<br>exceed 900 microcuries. |
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10. Authorized Use

A. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Models LB 7440 D/F/DE/FE, LB 7442 D/F/DE/FE, LB 7444, LB 7445 D/F/DE/FE, LB 7446 D/F/DE/FE, or LB 300 LP Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.

B. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Models LB 7440 D/F/DE/FE, LB 7442 D/F/DE/FE, LB 7445 D/F/DE/FE, LB 7446 D/F/DE/FE, or LB 300 LP Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.

C. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Models LB 7440 D/F/DE/FE, LB 7445 D/F/DE/FE, or LB 300

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LP Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.

- D. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Models LB 7442 D/F/DE/FE, LB 7446 D/F/DE/FE, or LB 300 LP Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- E. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Models LB 7440 D/F/DE/FE, LB 7445 D/F/DE/FE, or LB 300 LP Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized on the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- F. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 300 L Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings.
- G. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 379 gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings.
- H. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB-7487 Ash Monitoring System. Also, for receipt, possession, distribution, and storage within transport shieldings.

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- I. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 300 IRL Type 1 Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized on the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- J. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 300 ML Series or LB 300 MLT Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized on the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- K. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 300 IRL ML Type II Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized on the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- L., M., and N. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 375 Sulfur Analyzer gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- O. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 300 L Series gamma gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.

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- P. For receipt, possession, distribution, and storage as installed by the device manufacturer within Berthold Technologies Model LB 8110 Mass Flow gauge. Also, for receipt, possession, distribution, and storage within transport shieldings. The source activity for each device shall not exceed that authorized in the appropriate Registry of Radioactive Sealed Sources and Devices issued by the State of Tennessee.
- Q. For development and testing of a new product device. This development and testing shall be performed only at the licensee's facility authorized in Condition 17 of this license. All source loading or handling shall be performed within the licensee's authorized storage facility.

Conditions (continued)

12. The licensee shall comply with applicable provisions of 1200-2-4, 1200-2-5, and 12002-10 of "State Regulations for Protection Against Radiation."
13. A. Radioactive material authorized by this license shall be used by individuals who have been trained in accordance with statements, representations, and procedures contained in the documents referenced in Condition 33 of this license. Records of this training shall be maintained for inspection by the Department.
- B. The Radiation Safety Officer for this license is David Watkins. The Alternate Radiation Safety Officer for this license is Mark Morgan.
14. A. The licensee is authorized to install, relocate, maintain, repair, test, and service devices authorized by this license or EG&G Berthold devices that are listed in the Registry of Sealed Sources and Devices maintained by the U. S. Nuclear Regulatory Commission. The licensee is authorized to perform shutter tests for any device listed in the above registry.
- B. Except as provided in C. below and Condition 22, installation, replacement, removal from service and disposal of sealed sources containing radioactive material used in devices shall be performed only by the device manufacturer, or other persons authorized by this

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Department, the U. S. Nuclear Regulatory Commission, or another Agreement State to perform these services. Sources for disposal shall be shipped directly to the manufacturer in Germany under proper authorization. The licensee is authorized to install, replace, remove from service, and dispose of Berthold Technologies P 2608-100 sources in dip tubes which are not part of a registered device in accordance with Procedure Number 0014 submitted with letter dated March 1, 1999.

C. Notwithstanding the authorizations in this condition, the licensee is authorized to provide services for EG&G Berthold devices that contain sources not approved in the Registry of Sealed Sources and Devices for use in that device, and devices that have modifications not approved in the Registry. However, this authorization does not include any activity that modifies the source, source holder, source assembly, or removes the source assembly for any purpose other than for replacement with a properly registered and approved source assembly or disposal of the non-approved source or assembly.

15. A. The licensee shall distribute only sealed sources and/or devices for which a sealed source and device registration certificate has been issued by the U. S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210(e) or an Agreement State.

B. Distribution is authorized to persons specifically or generally licensed pursuant to 1200-2-10-.12 or 1200-2-10-.10(2) of "State Regulations for Protection Against Radiation", as appropriate, or equivalent provisions of the regulations of the U. S. Nuclear Regulatory Commission or another Agreement State.

16. In distributing devices to generally licensed persons, the licensee shall:

A. Report to the Department at its offices located at 3rd Floor, L & C Annex, 401 Church Street, Nashville, Tennessee 37243-1532, all transfers of such devices to persons for use under the general license in 1200-2-10-.10(2).

B. Report to the U. S. Nuclear Regulatory Commission all transfers of such devices to persons for use under the U.S. Nuclear Regulatory Commission general license in Section 31.5 of 10 CFR Part 31.

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- C. Report to the responsible Agreement State agency all transfers of devices manufactured and distributed pursuant to 1200-2-10-.13(5) for use under a general license in that state's regulations equivalent to 1200-2-10-.10(2).
- D. Reports required by A, B, and C of this condition shall identify each general licensee by name and address, an individual by name and/or position who may constitute a point of contact between the Department and the general licensee, the type and model number of device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact and relationship to the intended user. If no transfers have been made to persons generally licensed under 1200-2-10-.10(2) during the reporting period the report shall so indicate. The report shall cover each calendar quarter and shall be filed within 30 days thereafter.
- E. Keep records showing the name, address, and a point of contact for each general licensee to whom he directly or through an intermediate person transfers radioactive material in devices for use pursuant to the general license provided in 1200-2-10-.10(2) or equivalent regulations of the U.S. Nuclear Regulatory Commission, or an Agreement State. The record shall show the date of each transfer, the isotope and quantity of radioactivity in each device transferred, the identity of any intermediate person, and compliance with the report requirements of this condition. The records required by this part shall be maintained for a period of five years from the date of the recorded event.
17. Radioactive material authorized by this license shall be stored at the licensee's facility in Building 5, 801 South Illinois Avenue, Oak Ridge, Tennessee as designated in the documents referenced in Condition 33 of this license.
18. Radioactive material authorized by this license may be used at the licensee's facility in Condition 17 of this license and at temporary job sites of the licensee, in areas not under exclusive Federal jurisdiction, throughout the State of Tennessee.



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Before radioactive materials can be used at a temporary job site at any federal facility, the jurisdictional status of the job site must be determined. If the jurisdictional status is unknown, the Federal agency should be contacted to determine if the job site is under exclusive Federal jurisdiction. A response should be obtained in writing or a record should be made of the name and title of the person at the Federal agency who provided the determination and the date that it was provided. Authorization for use of radioactive materials at job sites under exclusive Federal jurisdiction shall be obtained either by: (1) filing an NRC Form-241 in accordance with 10 CFR 150.20(b), "Recognition of Agreement State Licenses", or (2) by applying for a specific NRC license.

Before radioactive materials can be used at a temporary job site in another State, authorization shall be obtained from the State if it is an Agreement State, or from the NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.

19. Any design and production changes of licensed devices to be distributed in the USA shall be approved by this Department before implementation.
20. The licensee shall maintain complete and accurate records of the receipt and disposal of radioactive material. The licensee shall, for radioactive material no longer useful for any purpose and for any equipment or supplies contaminated with such material for which further use and decontamination is not planned, define those materials as radioactive waste and treat them as such in accordance with the following provisions:
  - A. Radioactive waste material shall not be stored with non-radioactive waste.
  - B. A written record of all radioactive waste material shall be maintained until it has been determined by a suitable survey or radioassay that it has decayed to background levels or until it has been shipped to an authorized recipient in accordance with all applicable regulations. Accountability of radioactive waste material prepared for shipment but not yet shipped from the licensee's premises shall be maintained by the licensee by an internal record system such that the licensee is constantly aware of the material's location and the

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proposed time of shipment. Individuals who are involved in the shipping of such material and/or the storage of such material prior to shipment, shall be trained in the precautions necessary for such handling and storage.

- C. For material which has decayed to background levels as determined by radioassay or external level as measured with appropriately calibrated instruments, records shall indicate that the material was determined to be no longer radioactive and will indicate the methods and results of the survey or analysis.
- D. Shipment records of radioactive waste material shall be maintained and the licensee shall require written confirmation from the authorized recipient of such material that this material has been received.
- E. All records and written confirmations required by this condition shall be maintained for inspection by the Department.

The requirements for this condition are in addition to any other requirements for the handling and/or disposal of radioactive material contained in this license and "State Regulations for Protection Against Radiation."

- 21. A. Sealed sources authorized by this license shall be tested for leakage and/or contamination at intervals not to exceed three (3) years except for Item Q which is not required to be tested. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to transfer, the sealed source shall not be put into use until tested.
- B. The tests shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surface of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak tests shall be kept in units of microcuries and maintained for inspection by the Department.

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- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Division of Radiological Health, Tennessee Department of Environment and Conservation, 3rd Floor L&C Annex, 401 Church Street, Nashville, Tennessee, 37243-1532, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons authorized by this Department, the U. S. Nuclear Regulatory Commission or another Agreement State to perform such services.
22. The licensee shall not open sealed sources or remove them from their source holders except that sources may be removed during Part II Audits as described in Procedure Number 0010 attached to letter dated May 22, 1997, and as authorized in Condition 14 of this license.
23. The licensee is authorized to perform leak tests of customer sealed sources and possess any radioactive material contained on the test media as a result of the tests in accordance with the documents referenced in Condition 33 of this license. Records of leak tests in microcuries shall be provided to the customer.
24. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under this license. Records of inventories shall be maintained for inspection by the Department.
25. After installation, the licensee shall survey each device distributed under this license for radiation levels and conduct a test for proper operation of the on-off mechanism and indicator, if any. Records of these surveys and tests shall be provided to the recipient of the device.
26. The licensee shall test each device distributed under this license for leakage of radioactive material. A record of this test shall be provided to the recipient of the device.

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27. No generally licensed device shall be installed by the licensee in such a manner or in such a location that any person could receive more than 0.5 rem in a calendar year under ordinary circumstances of use.
28. A. The licensee shall furnish a copy of the general license contained in 1200-2-10-.10(2) to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license contained in 1200-2-10-.10(2).
- B. The licensee shall furnish a copy of the general license contained in the U. S. Nuclear Regulatory Commission's or Agreement State's regulation equivalent to 1200-2-10-.10(2), or alternatively, furnish a copy of the general license contained in 1200-2-10-. 10(2), to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license of the U.S. Nuclear Regulatory Commission or the Agreement State. If a copy of the general license in 1200-2-10-.10(2) is furnished to such person, it shall be accompanied by a note explaining that use of the device is regulated by the U.S. Nuclear Regulatory Commission or an Agreement State under requirements substantially the same as those in 1200-2-10-.10(2).
29. The licensee shall provide training for general licensees at the time of device installation in accordance with Berthold Technologies Procedure Number 0003 issued February 23, 1997.
30. Each device distributed to general licensees shall bear a durable, legible, clearly visible label or labels approved by the Department which contain in a clearly identified and separate statement:
1. Instructions and precautions for safe installation, operation, and servicing of the device (documents such as operating and service manual may be identified in the label and used to provide this information);
  2. The requirements, or lack of requirement, for leak testing, or for testing any on-off mechanism and indicator, including the maximum time interval for such testing, and identification of the radioactive material by isotope, quantity; and

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3. The information called for in the following statement in the same or similar form:

The receipt, possession, use, and transfer of this device Model \_\_\_\_\_, Serial No. \_\_\_\_\_, are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or of a State with which the NRC has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.

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(Name of manufacturer or distributor)

Note: If specified elsewhere in labeling affixed to the device, the model, serial number, and manufacturer or distributor may be omitted from this label.

31. No maintenance, repair, or testing of any licensed device in which the shutter is required to be open shall be performed at the licensee's authorized place of use unless the device is on the floor within the storage room with the primary radiation beam directed to the floor. The licensee shall perform surveys for these events in accordance with SRPAR 1200-2-5-.61. Records of these surveys shall be maintained for inspection by the Department.
32. No provision of this license relieves the licensee from compliance with other Federal, State and local laws, ordinances, and regulations applicable to the licensee's activities.
33. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 8, and 9 of this license in accordance with statements, representations, and procedures contained in the following documents:
  - license application dated December 2, 1996, with attachments, and resubmitted application dated January 14, 1997
  - "Application for Registration of Radioactive Sealed Sources in Devices" dated October 16, 1996, amended January 5, 1997, March 13, 1997, and November 21, 1997

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- "Application for Registration of Radioactive Sealed Sources in Devices" dated March 10, 1997, amended May 23, 1997, August 18, 1997, August 19, 1997, August 26, 1997, October 15, 1997, and October 16, 1997
- "Application for Registration of Radioactive Sealed Sources in Devices" dated June 20, 1997, amended September 8, 1997
- "Application for Registration of Radioactive Sealed Sources in Devices" dated October 14, 1997
- "Application for Registration of Radioactive Sealed Sources and Devices" dated March 1, 1998, with attachments
- "Application for Registration of Radioactive Sealed Sources in Devices" dated March 7, 1998, with attachments, received May 27, 1998
- "Application for Registration of Radioactive Sealed Sources and Devices" dated May 28, 1998, with attachments
- "Application for Registration of Radioactive Sealed Sources in Devices" dated November 17, 1998, with attachments
- "Application to Register A Radioactive Sealed Source in a Shielding" dated January 26, 1999
- letters dated October 17, 1996, with attachments, January 7, 1997, with attachments, January 8, 1997, January 14, 1997, (three letters, one with attachment, one with attachments), January 20, 1997, January 28, 1997, (three letters, all with attachments), February 4, 1997, with attachments, February 18, 1997, with attachments, February 24, 1997, (two letters, one with attachments including EG&G Berthold Quality Manual), March 6, 1997, with attachments, (including EG&G Berthold USA Manufacturing Quality Assurance Manual received March 7, 1997), March 7, 1997, with attachment, March 10, 1997, March 11, 1997, with attachments, March 12, 1997, with attachments,

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March 19, 1997, amended March 25, 1997, March 26, 1997, with attachments, March 31, 1997, April 1, 1997, (two letters, one with attachments), May 5, 1997, with attached photographs, May 21, 1997, with attachment, May 22, 1997, (two letters, both with attachments), June 2, 1997, with attachments, June 16, 1997, with attachments, June 20, 1997, with attachments, August 18, 1997, with attachments, August 27, 1997, September 8, 1997, with attachments, September 16, 1997, October 14, 1997, with attachments, October 20, 1997, October 30, 1997, November 21, 1997, with attachments, December 17, 1997, with attachments, January 8, 1998, with attachments, January 29, 1998, February 10, 1998, with attachments, March 9, 1998, with attachments, March 12, 1998, with attachments, April 6, 1998, with attachments, April 16, 1998, with attachments, April 22, 1998, with attachments, May 10, 1998, with attachments, May 26, 1998, with attachments, May 27, 1998, with attachments, June 1, 1998, with attachments, June 2, 1998, with attachments, July 1, 1998, with attachments, July 16, 1998, July 17, 1998, with attachments, July 20, 1998, with attachments, July 31, 1998, with attachments, August 12, 1998, August 12, 1998, with attachments, August 27, 1998, (two letters), September 10, 1998, November 18, 1998, with attachments, November 24, 1998, January 11, 1999, with attachments, February 5, 1999, with attachments, February 8, 1999, with attachments, February 12, 1999, with attachments, February 18, 1999, with attachments, February 25, 1999, with attachments, March 1, 1999, with attachments, March 12, 1999, March 17, 1999, April 1, 1999, with attachments, April 5, 1999, with attachments, April 14, 1999, with attachment, April 22, 1999, April 22, 1999, with attachments, May 18, 1999, May 26, 1999, June 3, 1999, with attachments, June 9, 1999, with attachments, June 18, 1999, June 28, 1999, with attachments, July 28, 1999, with attachments, August 20, 1999, with attachments, September 10, 1999, with attachments, October 12, 1999, with attachments, October 24, 1999, with attachments, October 27, 1999, with attachment, November 1, 1999, December 14, 1999, with attachments, January 24, 2000, with attachments, February 23, 2000, with attachments, May 3, 2000, June 15, 2000, August 10, 2000, October 3, 2000, October 27, 2000, with attachments, November 7, 2000, with attachments, and November 27, 2000

- letter received April 30, 1997, with attachments, drawing received June 4, 1997
- telefaxes dated February 27, 1997, March 13, 1997, (two), June 3, 1997, and January 11, 1999

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- telephone conversation with Jami Holbert on November 21, 1997, and Gus Norton on February 28, 2000

34. The licensee is authorized to use radioactive material authorized by this license to conduct a training/demonstration session in accordance with statements, representations, and procedures contained in telefax dated January 11, 1999, and letter dated January 11, 1999, with attachments.
35. The licensee is authorized to distribute two Model LB 7444 devices each with lead collimator inserted into the shutter aperture to Arteva Specialties S.A.R.L dba KoSa Salisbury Plant, Highway 70 West, Salisbury, NC 28145, North Carolina Materials License No. 080-0100-2 (identified by EG&G Berthold as Hoechst Celanese, Salisbury Plant, Highway 70 West, Salisbury, NC 28144) in accordance with statements, representations, and procedures contained in letters dated April 14, 1999, with attachment, April 22, 1999, and May 26, 1999.
36. The licensee is authorized to possess, distribute, install, and service LB 7444 devices that have been modified to add the lead collimator insert into the shutter aperture in accordance with the documents referenced in Condition 33 of this license and TN-1031-D-101-B of the Registry. The lead collimator shall be inserted by the device manufacturer except that the licensee may insert the collimator for previously distributed devices and the one device in storage at the licensee's address. The licensee shall insert the collimator into installed devices when called upon to de-mount and service the unit unless this time frame is not acceptable to the regulatory agency maintaining jurisdiction for the location of the installed device. Devices in storage shall have the collimator inserted as soon as possible. The licensee shall contact the regulatory agency maintaining jurisdiction for its concurrence in the time frame for insertion, and shall provide written verification to them and the Department of its completion. The licensee shall provide written notification of this authorization to its customers with LB 7444 devices installed before the date of this amendment.